

Protecting Public Water Sources in Louisiana

Presented by Jesse Means

A faint, light-colored illustration serves as a background for the lower half of the slide. It depicts a landscape with a winding path or river in the foreground, a large palm tree on the left, a tall, rectangular industrial structure in the center, and a small house on the right.

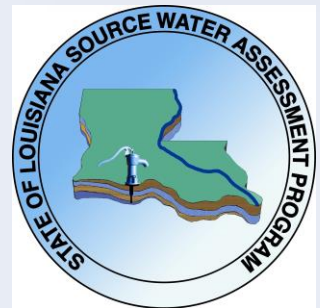
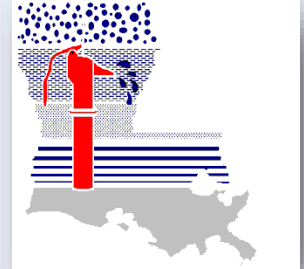
Today's Presentation

- Overview
 - Source Water Assessment Program
 - Drinking Water Protection Program

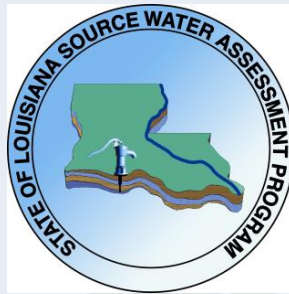


DEQ's Drinking Water Protection History

- Wellhead Protection Program
- Source Water Assessment Program
- Drinking Water Protection Program



Source Water Assessment Program



- Assessed the potential susceptibility to contamination of all sources of public drinking water supplies.
- LDEQ mapped the locations of all public supply wells, surface water intakes, and potential sources of contamination within delineated source water protection areas.

POTENTIAL Source of Contamination

- Any facility, location, or activity that stores, uses, or produces as product or by-product, contaminants of concern and has sufficient likelihood of releasing such contaminants at levels that could pose a concern relative to drinking water sources.
- Worked off specific lists



Total/Most Common Potential Sources Statewide

- 15,022 total
- 3,341 above ground storage tanks
- 2,165 underground storage tanks
- 1,796 sewer lift stations
- 1,531 auto/boat/tractor/small engine shops
- 907 cemeteries



SWAP Map for Groundwater Source

ALLEN PARISH WATER DISTRICT #1

Well # LA1003001-001

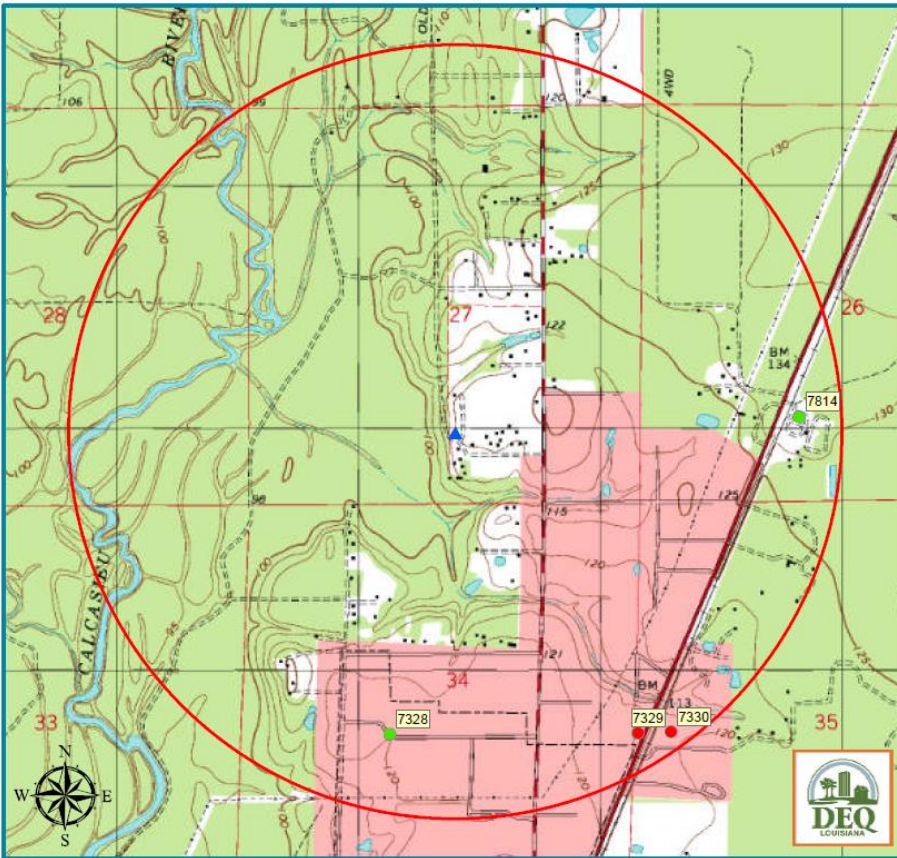
Potential Sources of Contamination



- ▲ Waterwell
- SPSOC
- High Risk
- Medium Risk
- Low Risk
- Protection Area
- (Radius = 1 Mile)

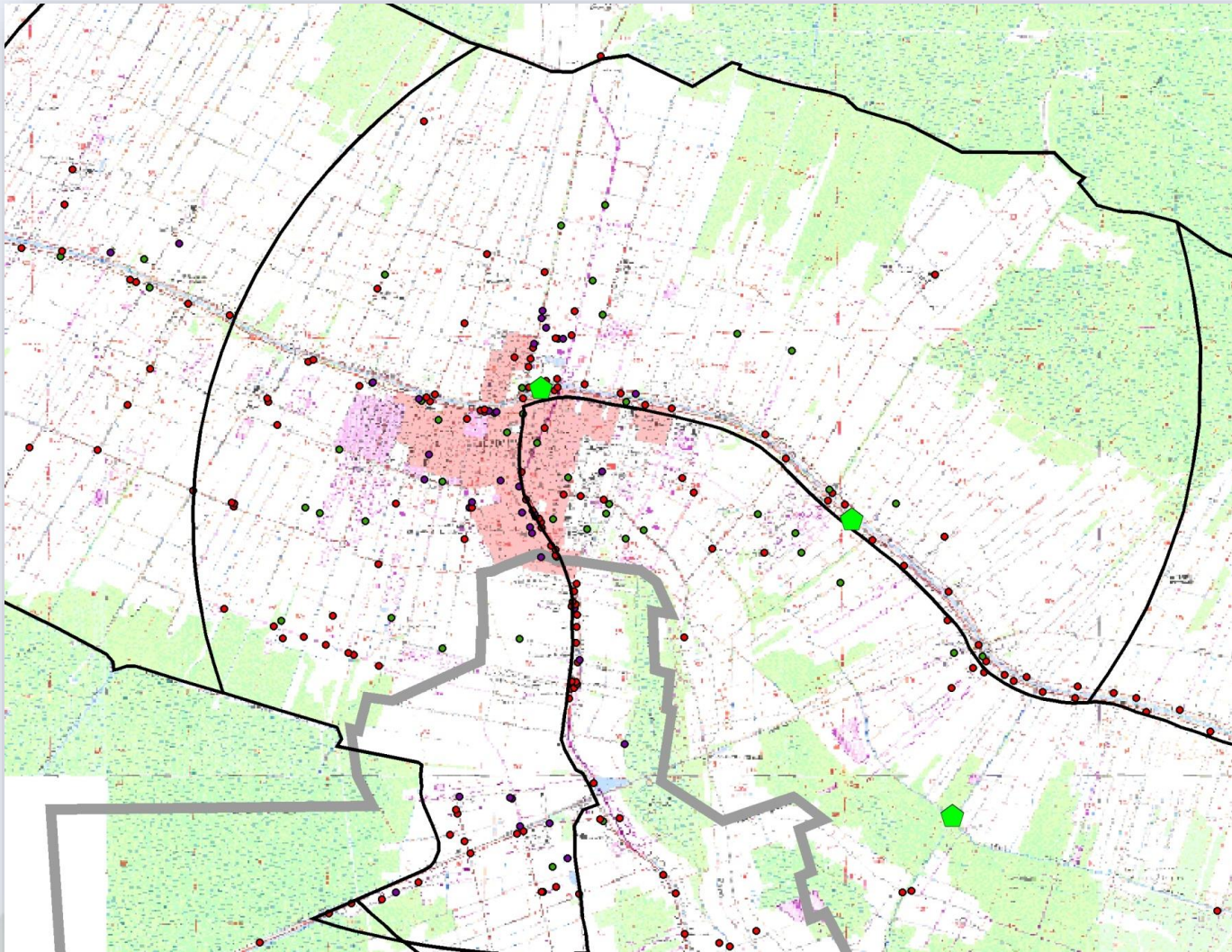
LDEQ Disclaimer:

The Louisiana Department of Environmental Quality (LDEQ) has made every reasonable effort to ensure quality and accuracy in producing this map or data set. Nevertheless, the user should be aware that the information on which it is based may have come from any of a variety of sources, which are of varying degrees of accuracy. Therefore, LDEQ cannot guarantee the accuracy of this map or data set, and does not accept any responsibility for the consequences of its use.



1003001.001
Allen Parish Water District #1
30.84933 N ; 92.66107 W
06/21/2009

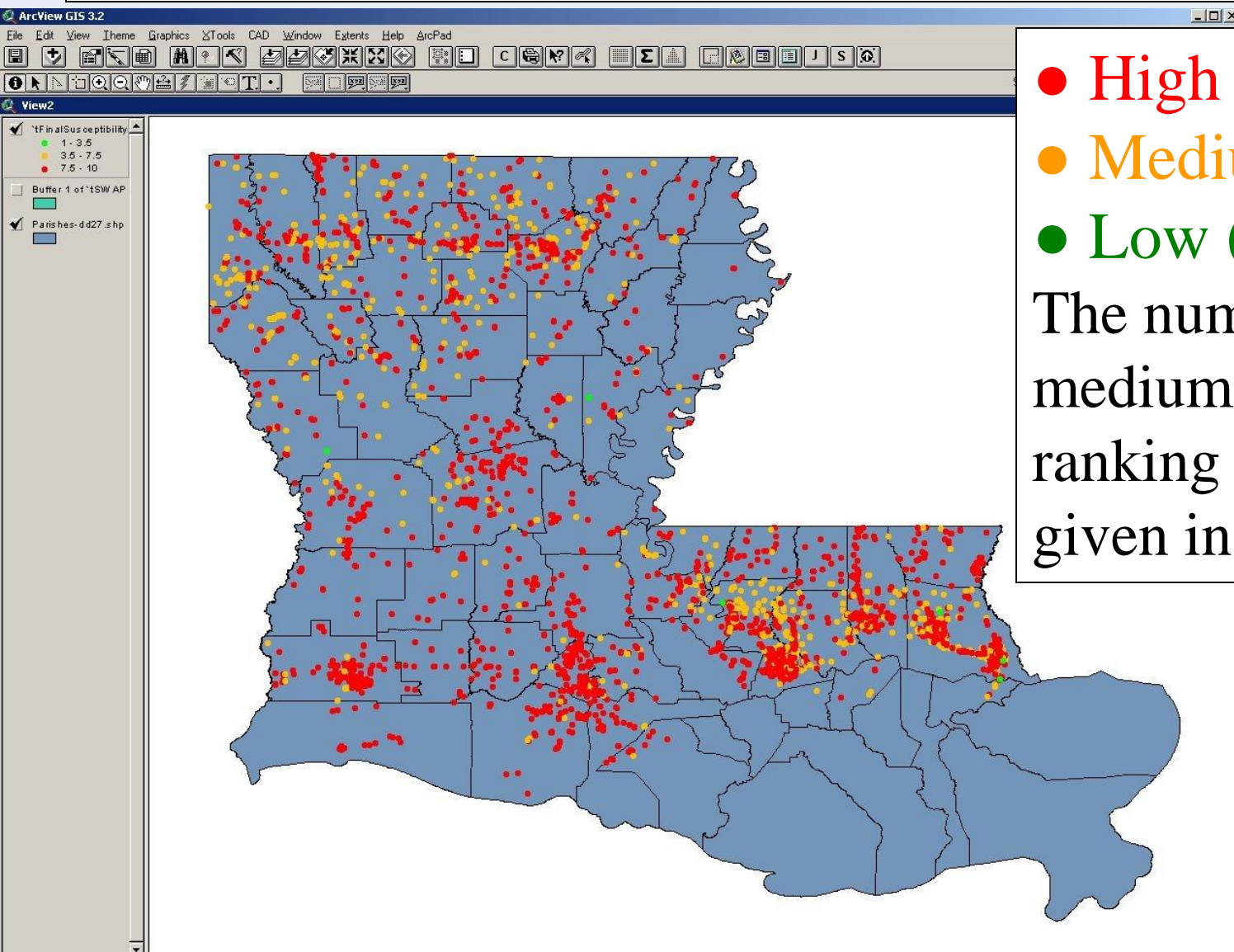
Critical Area for Surface Water Source



Determining Potential Susceptibility

- Types and number of potential sources of contamination in the source water protection area and their distance from the well or intake.
- For groundwater systems, the age and depth of the well, the aquifer, and the recharge potential.
- For surface water systems, the age of the intake, average annual rainfall, vegetative cover, slope of the land, and the number of feeder streams to the water source.
- Ranked public water systems based on findings.
- Each public water systems received a copy of their data

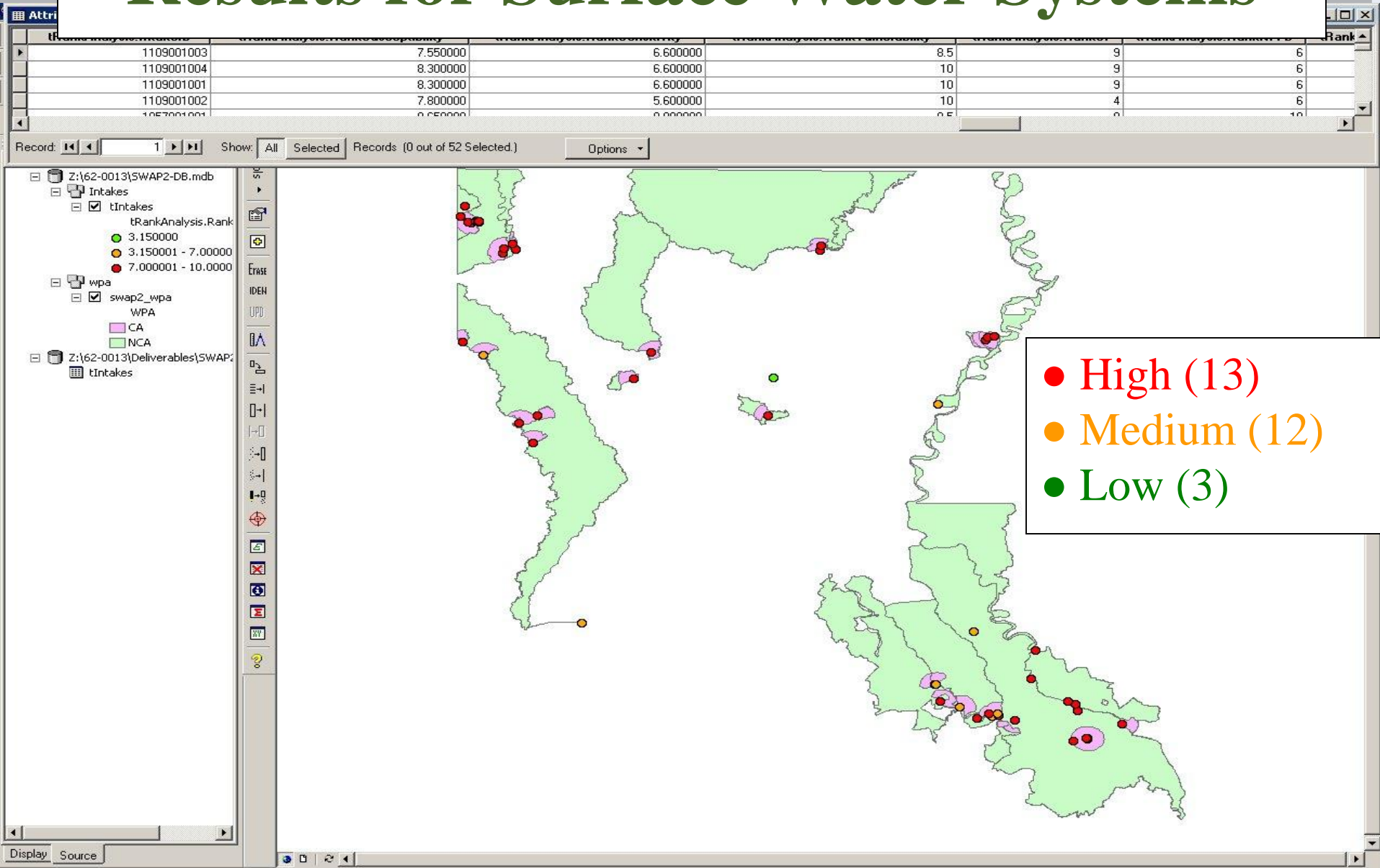
Statewide Source Water Assessment Results for Groundwater Systems

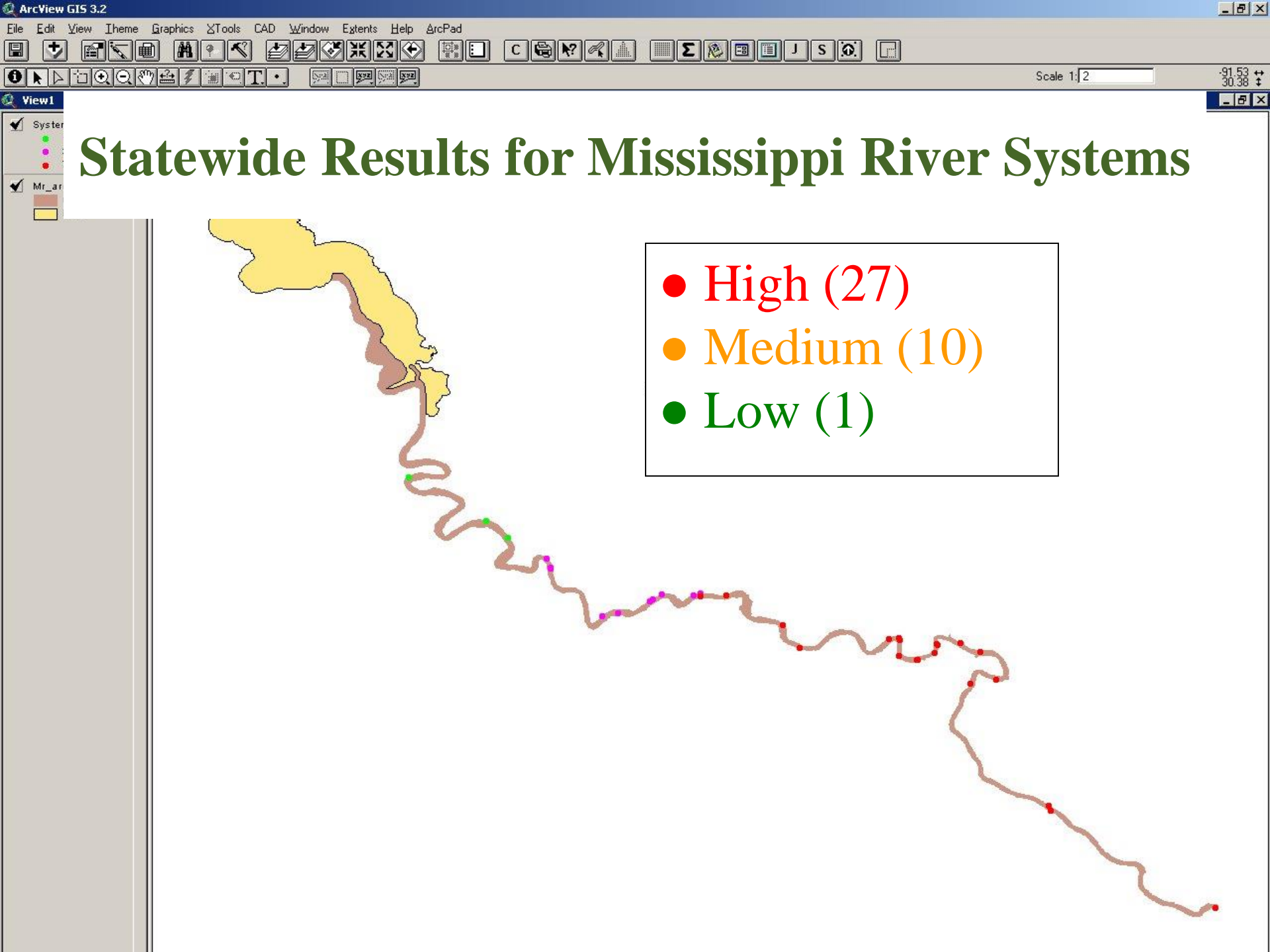


- High (454)
- Medium (1237)
- Low (36)

The number of high-, medium-, and low-ranking systems are given in parentheses.

Statewide Source Water Assessment Results for Surface Water Systems





Targeting Communities For Protection

- LDEQ targets communities on a parish-wide basis. Parishes with numerous water systems having high susceptibility rankings are targeted first, especially in population centers.
- Also try to target communities that have surface water sources of drinking water.

Other Uses of Source Water Assessments

- Water system personnel use the results to identify areas of potential concern so they may be properly monitored and managed, as well as to site new wells.
- State and federal agencies use the results for emergency preparedness, contamination incident investigations, permitting, and anti-terrorism plans.



Drinking Water Protection Program

Goal is to protect Louisiana's drinking water sources

Public Education/Awareness

Contingency Planning

Promoting Community Involvement

Promotion Of Ordinances

Address Specific Issues



Public Education/Awareness

- Where drinking water comes from
- Why it's important to protect it
- How to protect it



Public Education/Awareness – Signs

LDEQ provides Drinking Water Protection Area highway signs to the local water systems to be placed at the boundaries of their source water protection areas.



Public Education/Awareness -

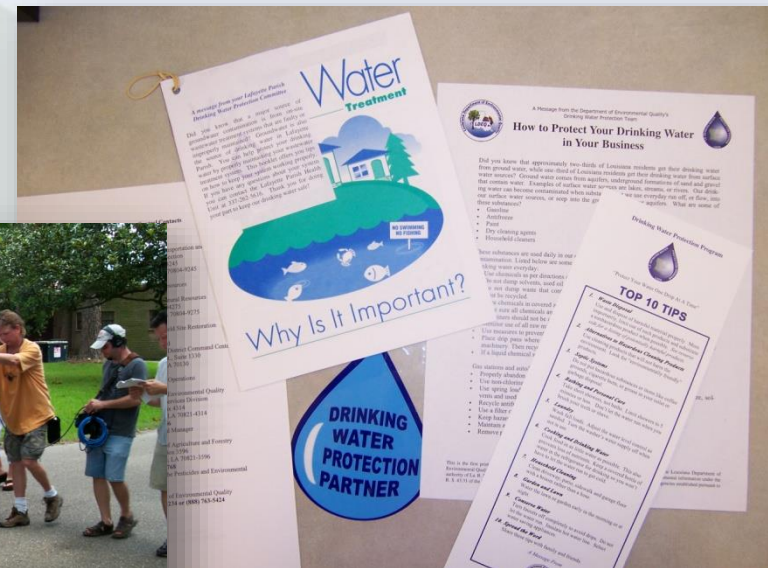
Presentations

Community meetings, schools, organizations



Public Education/Awareness

Media, video, fact sheets, newsletter



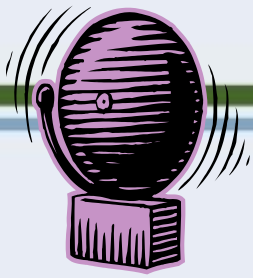
Public Education/Awareness

Committee training, guest speakers, visits to potential sources of contamination, ordinance promotion



Public Education/Awareness

- Tracking shows almost 40,000 people presented to (doesn't count population reached by media)
- 4,162 visits to potential sources of contamination
- 711 volunteers



Contingency Planning

Visit water systems and work with officials to complete contingency plans to be used in the case of an emergency or loss of water supply.



Contingency Planning

Updating Source Water Assessment Data

- Go over SWAP results
- GPS new wells/intakes, note removed ones
- Update potential source of contamination information



Promoting Community Involvement

Visit water systems, local officials (mayors, police jurors, etc.), and local organizations



Promoting Community Involvement

Media



DEQ crosses state with clean water message

By STEVEN K. LANDRY
Special to The Advocate

RAYNE — Louisiana Drinking Water Protection Program geologists were in town this past week at Martin Petitjean Elementary School.

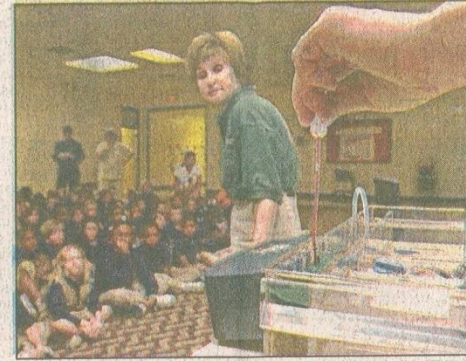
Their message to the 200 students before their slide show-interactive demonstration: Water is easy to contaminate, but difficult to clean up.

"Pets!" yelled Mishillia Spicer, a first-grader who answered Mary Gentry's query about who uses water. Gentry, along with fellow Department of Environmental Quality geologist Tiffani Cravens, continued their 40-minute show.

"A faucet!" piped up Aysiah Minix of where drinking water comes from.

"That's right," Gentry said. "But actually it comes from underground. All of the water in Acadia Parish comes from underground."

Smiles and nods all around. Acadia Parish is the second parish visited by the Louisiana Drinking Water Protection Program team as part of a two-month jaunt to public and private schools to present environmental



Advocate staff photo by Bryan Tuck

Department of Environmental Quality geologist Mary Gentry, left, watches as geologist Tiffani Cravens injects red dye into a water-filled tank to demonstrate ground water contamination. The state workers were at Martin Petitjean Elementary School in Rayne last week to promote an upcoming series of public hearings aimed at raising clean-water awareness and protection.

information to students. The visits began Feb. 4.

The whole is invited to a community meeting 6:30 p.m. Thursday, at the Rayne Civic Cen-

ter at 300 Frog Festival Drive.

There, the team hopes to galvanize citizens, community groups, water systems, businesses and industry with the news that clean

water is essential for health.

The team will convey that message via water-tank-and-red-dye demonstrations and question-and-answer sessions involving resource protection and conservation tips to keep the state's drinking water clean.

About 70 percent of Louisiana pumps water from underground, Gentry said. The remainder obtains water from surface-water sources — such as the Mississippi River for New Orleans, Toledo Bend for a westside tri-parish area, and the Red River for Bossier City.

"But we plan to hit every parish, whether it's underground or surface," Gentry said minutes before the visit to Martin Petitjean Elementary.

The team will also be replacing signage near water wells that dot Acadia Parish.

Jesse Means, a geologist with the DEQ protection team since last summer's Avoyelles Parish project — the first project for the team — said switching signage from "Wellhead Protection Area" to "Drinking Water Protection Area" is a vital part of the state's efforts.

□ See WATER, Page 2B

Promoting Community Involvement

A community meeting is held in the parish to educate the public and solicit volunteers to join a parish drinking water protection committee.



Promoting Community Involvement - Committees

- Locally based planning and action team that will implement drinking water protection activities on a parish-wide basis.
- Major activities committee accomplishes:
 - Educate businesses close to water sources.
 - Distribute educational and informational materials on drinking water protection.
 - Assist with adoption of model ordinance.
 - Set goals and work on specific issues



Visit Potential Source Of Contamination

- Inform owner/operator that they are located near a public water supply well or intake, give them best management practices and decal
- Identify changes in SWAP data



Distribution of Information

- LDEQ and the committee distribute fact sheets as appropriate to help with drinking water protection

Committee Training Manual

Drinking Water Program Brochure

Water Facts and Figures

How to Protect Drinking Water in the Home

How to Protect Drinking Water in the Business

Well Plugging and Abandonment

Lawn and Garden Fact Sheet

Pharmaceutical Disposal Practices

How to Protect Drinking Water – Contractor Education

Top Ten Tips to Protect Drinking Water

Spill Prevention and Control for Above Ground Storage Tanks

How to Conserve Drinking Water in the Home

How to Conserve Drinking Water in the Business

Best Management Practices for Irrigation Wells

Best Management Practices for Underground Storage Tanks

BMPs for Businesses Using Small Quantities of Chemicals

- Used Oil/Antifreeze, etc. Recycling
- Drinking Water Protection Video
- Website
- Media



Promotion of Ordinances



- Model ordinance developed by looking at EPA and other example ordinances and through multiple reviews.
- Protects water wells used by active public water systems from contamination.
- Prohibits certain potential sources of contamination from being placed within 1000 feet of these water wells.
- 102 ordinances adopted

Address Specific Issues - Identification

- SWAP Data
- DEQ's historic sampling data
- Local officials, water systems, citizens
- Committees

Address Specific Issues - Examples

- Above Ground Storage Tanks – Avoyelles
- Sibley Lake Project – Natchitoches
- Bayou Lafourche Project
- Household Hazardous Materials Collection Days



Summary/Questions

- Source Water Assessment Program – assesses potential susceptibility of water **sources**
- Drinking Water Protection Program - protects water **sources**
- Questions?



Contact Information

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